

In the claims:

1. (original) A programmable oscillator comprising a capacitor; a current generator couplable to said capacitor that generates a charging current of said capacitor; further comprising at least one resistance coupled to said capacitor; a comparator coupled to said capacitor for comparing a voltage at the terminals of said capacitor with a prefixed reference voltage and for generating an output signal; a first switch, controlled by said output signal, coupled to said capacitor, that creates a current path able to facilitate the discharging of said capacitor.

2. (original) The oscillator according to claim 1 wherein said oscillator generates an output voltage comprised between a first voltage value and a second voltage value and said prefixed reference voltage is comprised between said first voltage value and said second voltage value.

3. (original) The oscillator according to claim 1 wherein said first switch is placed in parallel with said capacitor and short-circuits said capacitor.

4. (original) The oscillator according to claim 1 wherein said at least one resistance is connected in parallel with said capacitor.

5. (original) The oscillator according to claim 1, further comprising a second switch that selectively couples said current generator to said capacitor.

6. (original) The oscillator according to claim 5 wherein said second switch switches from a first state to a second state in response to the voltage at the terminals of said capacitor.

7. (original) A controller circuit for lamps of the ballast type comprising a half bridge that drives a lamp, said half bridge being controlled by an oscillator that comprises a capacitor; a current generator couplable to said capacitor that generates a charging current of said capacitor; further comprising at least one resistance coupled to said capacitor; a comparator coupled to said capacitor for comparing a voltage at the terminals of said capacitor with a prefixed reference voltage and for generating an output signal; a first

switch, controlled by said output signal, coupled to said capacitor, that creates a current path able to facilitate the discharging of said capacitor.

8. (original) A integrated circuit comprising a programmable oscillator according to claim 1 that comprises only a first and a second control pin external to said integrated circuit; said current generator is coupled to said first pin; said capacitor is coupled to said second pin.

9. (new) An oscillator, comprising:
a capacitor having first and second nodes;
a current source operable to be coupled to the first node of the capacitor and to charge the capacitor during a charge portion of an oscillating period; and
a resistor coupled to the first node of the capacitor and operable to discharge the capacitor during a discharge portion of the oscillating period.

10. (new) The oscillator of claim 9 wherein the second node of the capacitor is coupled to ground.

11. (new) The oscillator of claim 9 wherein the resistor is in electrical parallel with the capacitor.

12. (new) The oscillator of claim 9, further comprising:
wherein the resistor is operable to discharge the capacitor during a first part of the discharge portion;
a discharge switch coupled to the first node of the capacitor; and
wherein the discharge switch is operable to discharge the capacitor during a second part of the discharge portion.

13. (new) The oscillator of claim 9, further comprising an oscillator switch operable to couple the current source to the first node of the capacitor during the charge portion of the oscillating period.

14. (new) The oscillator of claim 9, further comprising:

wherein the resistor is operable to discharge the capacitor during a first part of the discharge portion;

a discharge switch having a drive node coupled to the first node of the capacitor and having a control node, the discharge switch operable to discharge the capacitor during a second part of the discharge portion; and

an oscillator switch operable to couple the current source to the first node of the capacitor during the charge portion of the oscillating period and operable to couple the control node of the discharge switch to the first node of the capacitor during the discharge portion of the oscillating period.

15. (new) An integrated circuit, comprising:

a first terminal operable to be coupled to an external capacitor and to a first external resistor that is operable to discharge the capacitor during a discharge portion of an oscillating period; and

a current source operable to be coupled to the first terminal and to charge the capacitor with a charge current during a charge portion of the oscillating period.

16. (new) The integrated circuit of claim 15, further comprising a second terminal coupled to the current source and operable to couple to a second external resistor that is operable to set a value of the charge current.

17. (new) A lamp control circuit, comprising:

a first terminal operable to be coupled to an external capacitor and to a first external resistor that is operable to discharge the capacitor during a discharge portion of an oscillating period;

a current source operable to be coupled to the first terminal and to charge the capacitor with a charge current during a charge portion of the oscillating period;

a second terminal coupled to the current source and operable to couple to a second external resistor that is operable to set a value of the charge current;

a third terminal operable to provide a drive signal to the lamp; and

a generator coupled to the first and third terminals and operable to generate the drive signal in response to a voltage across the capacitor.

18. (new) A method, comprising:
charging a capacitor with a current source during a charge portion of an oscillating period; and
discharging the capacitor through a resistor during a discharge portion of the oscillating period.

19. (new) The method of claim 18 wherein the resistor is in electrical parallel with the capacitor.

20. (new) The method of claim 18, further comprising:
wherein discharging the capacitor comprises discharging the capacitor through the resistor during a first part of the discharge portion; and
discharging the capacitor through a switch during a second part of the discharge portion.

21. (new) The method of claim 18, further comprising uncoupling the current source from the capacitor while discharging the capacitor.